a hydraulic brake for braking the driving wheel, wherein the hydraulic brake generates a braking force, the magnitude of which corresponds to a hydraulic pressure applied to the hydraulic brake;

a brake valve for adjusting the hydraulic pressure applied to the hydraulic brake;

a brake actuator, which is moved by a human operator to actuate the hydraulic brake;

a sensor for detecting the rotational speed of the driving wheel; and

a controller, wherein the controller controls the brake valve such that the hydraulic brake brakes the driving wheel with a force of a normal value, which corresponds to a force applied to the brake actuator, wherein the controller computes the rotational deceleration of the driving wheel while braking based on the detected rotational speed, and wherein, when the computed rotational deceleration exceeds a predetermined deceleration determination value, the controller controls the brake valve such that the braking force of the hydraulic brake is set to a limit value, which is smaller than the normal value,

wherein the hydraulic brake is one of a forward clutch and a reverse clutch, which are included in the transmission, the forward clutch being engaged when the vehicle is moving forward, the reverse clutch being engaged when the vehicle is moving backward, each clutch producing an engaging force corresponding to an applied hydraulic pressure,

wherein the brake valve is one of a forward clutch valve for adjusting a hydraulic pressure applied to the forward clutch and a reverse clutch valve for adjusting a hydraulic pressure applied to the reverse clutch,

wherein, when the vehicle is moving forward, the reverse clutch functions as the hydraulic brake and the reverse clutch valve functions as the brake valve, and wherein, when the

vehicle is moving backward, the forward clutch functions as the hydraulic brake and the forward clutch valve functions as the brake valve.

2. (Amended) The industrial vehicle according to claim 5, wherein the hydraulic brake is one of a forward clutch and a reverse clutch, which are included in the transmission, the forward clutch being engaged when the vehicle is moving forward, the reverse clutch being engaged when the vehicle is moving backward, each clutch producing an engaging force corresponding to an applied hydraulic pressure, wherein the brake valve is one of a forward clutch valve for adjusting a hydraulic pressure applied to the forward clutch and a reverse clutch valve for adjusting a hydraulic pressure applied to the reverse clutch, wherein, when the vehicle is moving forward, the reverse clutch functions as the hydraulic brake and the reverse clutch valve functions as the brake valve, and wherein, when the vehicle is moving backward, the forward clutch functions as the hydraulic brake and the forward clutch valve functions as the brake valve.

3. (Amended) The industrial vehicle according to claim 5, wherein the hydraulic brake is a hydraulic-clutch type parking brake.

4. (Amended) An industrial vehicle comprising:

an engine;

a torque converter;

a transmission coupled to the engine by the torque converter;

a driving wheel, wherein the driving wheel is rotated by power that is transmitted from the transmission;

a hydraulic brake for braking the driving wheel, wherein the hydraulic brake generates a braking force, the magnitude of which corresponds to a hydraulic pressure applied to the hydraulic brake;

a brake valve for adjusting the hydraulic pressure applied to the hydraulic brake;

a brake actuator, which is moved by a human operator to actuate the hydraulic brake;

a sensor for detecting the rotational speed of the driving wheel; and

a controller, wherein the controller controls the brake valve such that the hydraulic brake brakes the driving wheel with a force of a normal value, which corresponds to a force applied to the brake actuator, wherein the controller computes the rotational deceleration of the driving wheel while braking based on the detected rotational speed, and wherein, when the computed rotational deceleration exceeds a predetermined deceleration determination value, the controller controls the brake valve such that the braking force of the hydraulic brake is set to a limit value, which is smaller than the normal value,

wherein, when the vehicle speed is lower than a predetermined determination value, the controller maintains the braking force of the hydraulic brake at the normal value regardless of the rotational deceleration.

5. (Amended) An industrial vehicle comprising:

an engine;

a torque converter;

a transmission coupled to the engine by the torque converter;

a driving wheel, wherein the driving wheel is rotated by power that is transmitted from the transmission;

a hydraulic brake for braking the driving wheel, wherein the hydraulic brake generates a braking force, the magnitude of which corresponds to a hydraulic pressure applied to the hydraulic brake;

a brake valve for adjusting the hydraulic pressure applied to the hydraulic brake;

a brake actuator, which is moved by a human operator to actuate the hydraulic brake;

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a sensor for detecting the rotational speed of the driving wheel; and

a controller, wherein the controller controls the brake valve such that the hydraulic brake brakes the driving wheel with a force of a normal value, which corresponds to a force applied to the brake actuator, wherein the controller computes the rotational deceleration of the driving wheel while braking based on the detected rotational speed, and wherein, when the computed rotational deceleration exceeds a predetermined deceleration determination value, the controller controls the brake valve such that the braking force of the hydraulic brake is set to a limit value, which is smaller than the normal value,

wherein the controller controls the brake valve such that the braking force of the hydraulic brake is increased to the normal value after being decreased to the limit value, and wherein the normal value of the braking force is gradually decreased each time the braking force is increased to the normal value from the limit value.

9. (Amended) An industrial vehicle comprising:

an engine;

a torque converter;

a transmission coupled to the engine by the torque converter;

a driving wheel, wherein the driving wheel is rotated by power that is transmitted from the transmission;

a hydraulic brake located in a power transmission path between the torque converter and the driving wheel to brake the driving wheel, wherein the hydraulic brake generates a braking force, the magnitude of which corresponds to a hydraulic pressure applied to the hydraulic brake;

a brake valve for adjusting the hydraulic pressure applied to the hydraulic brake;

a brake actuator, which is moved by a human operator to actuate the hydraulic brake;

a sensor for detecting the rotational speed of the driving wheel;

a controller, wherein the controller controls the brake valve such that the hydraulic brake brakes the driving wheel with a force of a normal value, which corresponds to a force applied to the brake actuator, wherein the controller computes the rotational deceleration of the driving wheel while braking based on the detected rotational speed, and wherein, when the computed rotational deceleration exceeds a predetermined deceleration determination value, the controller controls the brake valve such that the braking force of the hydraulic brake is set to a limit value, which is smaller than the normal value; and

a wheel brake located at the driving wheel to directly brake the driving wheel in response to actuation of the brake actuator.

11. (Amended) An industrial vehicle comprising:

an engine;

a torque converter;

a transmission coupled to the engine by the torque converter, wherein the transmission includes a hydraulic forward clutch, which is engaged when the vehicle is moving forward, and a hydraulic reverse clutch, which is engaged when the vehicle is moving backward, and wherein each clutch produces an engaging force, the magnitude of which corresponds to a hydraulic pressure applied to the clutch;

a driving wheel, wherein the driving wheel is rotated by power that is transmitted from the transmission;

a hydraulic brake for braking the driving wheel, wherein the hydraulic brake generates a braking force, the magnitude of which corresponds to a hydraulic pressure applied to the hydraulic brake;

a brake valve for adjusting the hydraulic pressure applied to the hydraulic brake;

a brake actuator, which is moved by a human operator to actuate the hydraulic brake;

a sensor for detecting the rotational speed of the driving wheel;

a controller, wherein the controller controls the brake valve such that the hydraulic brake brakes the driving wheel with a force of a normal value, which corresponds to a force applied to the brake actuator, wherein the controller computes the rotational deceleration of the driving wheel while braking based on the detected rotational speed, and wherein, when the computed rotational deceleration exceeds a predetermined deceleration determination value, the

controller controls the brake valve such that the braking force of the hydraulic brake is set to a limit value, which is smaller than the normal value;

a forward clutch valve for adjusting a hydraulic pressure applied to the forward clutch;

a reverse clutch valve for adjusting a hydraulic pressure applied to the reverse clutch; and

a shift actuator, which is shifted between a forward position for moving the vehicle forward and a reverse position for moving the vehicle backward, wherein, when the shift actuator is shifted to the forward position, the controller controls the forward clutch valve to engage the forward clutch, and when the shift actuator is shifted to the reverse position, the controller controls the reverse clutch valve to engage the reverse clutch, and wherein, when direction switching is performed, in which the shift actuator is moved from the forward position to the reverse position or from the reverse position to the forward position while the vehicle is moving, the controller executes a vehicle deceleration control procedure for switching the moving direction of the vehicle.

34. (Amended) An industrial vehicle comprising:

an engine;

a torque converter;

a transmission coupled to the engine by the torque converter, wherein the transmission includes a forward clutch, which is engaged when the vehicle is moving forward, and a reverse clutch, which is engaged when the vehicle is moving backward;

a driving wheel, wherein the driving wheel is rotated by power that is transmitted from the transmission;

a sensor for detecting the rotational speed of the driving wheel; and

a controller for controlling the engine, wherein the controller computes the rotational acceleration of the driving wheel when the vehicle is accelerating based on the detected rotational speed, and wherein, when the computed rotational acceleration exceeds an acceleration determination value, which is predetermined for judging whether the driving wheel is skidding, the controller controls the engine output to limit the power transmitted to the driving wheel.

38. (Amended) An industrial vehicle comprising:

an engine;

a torque converter;

a transmission coupled to the engine by the torque converter, wherein the transmission includes a hydraulic forward clutch, which is engaged when the vehicle is moving forward, and a hydraulic reverse clutch, which is engaged when the vehicle is moving backward, and wherein each clutch produces an engaging force, the magnitude of which corresponds to a hydraulic pressure applied to the clutch;

a forward clutch valve for controlling the hydraulic pressure applied to the forward clutch;

a reverse clutch valve for controlling the hydraulic pressure applied to the reverse clutch;

a driving wheel, wherein the driving wheel is rotated by power that is transmitted from the transmission;

a sensor for detecting the rotational speed of the driving wheel; and

a controller for controlling the clutch valves, wherein the controller computes the rotational acceleration of the driving wheel when the vehicle is accelerating based on the detected rotational speed, and wherein, when the computed rotational acceleration exceeds an acceleration determination value, which is predetermined for judging whether the driving wheel is skidding, the controller decreases an engaging force of one of the clutches that corresponds to the moving direction of the vehicle for decreasing the power transmitted to the driving wheel by controlling the corresponding clutch valve.

Please cancel claims 45 and 46, and amend claim 48 to read as follows:

48. (Amended) An industrial vehicle comprising:

an engine;

a torque converter;

a transmission coupled to the engine by the torque converter, wherein the transmission includes a hydraulic forward clutch, which is engaged when the vehicle is moving forward, and a hydraulic reverse clutch, which is engaged when the vehicle is moving backward, and wherein each clutch produces an engaging force, the magnitude of which corresponds to a hydraulic pressure applied to the clutch;

a differential;

a pair of driving wheels coupled to the transmission by the differential, wherein the differential permits the rotational speeds of the driving wheels to differ;

a pair of sensors, wherein each sensor detects the rotational speed of one of the driving wheels; and

a controller for controlling the clutches, wherein the controller computes the rotational accelerations of the driving wheels when the vehicle is accelerating based on the detected rotational speeds, wherein, when the greater of the computed rotational accelerations exceeds an acceleration determination value, which is predetermined for judging whether each driving wheel is skidding, the controller decreases the engaging force of one of the clutches that corresponds to the moving direction of the vehicle for decreasing the power transmitted to the driving wheels.

Please cancel claim 49.

REMARKS

Claims 1-29, 34, 38, 40 and 48 are currently pending. No new matter has been added. Applicants thank the Examiner for the indication of the allowable subject matter of claims 2, 5-7 and 11-29. Please see Appendix I for a marked-up version of the amended claims. Applicants respectfully request reconsideration of the above-identified application in light of the above amendments and the following remarks.

Rejections under 35 U.S.C. § 112

1. Claim 9 was rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Claim 9 has been amended to be in independent form, to include the features of claim 1. The wheel brake recited in claim 9 is shown in Fig. 7, and the wheel brakes 46 of Fig. 7 can